

Title (en)
WATER TEMPERATURE CONTROL METHOD FOR SWIMMING POOL HEAT PUMP SYSTEM, APPARATUS, DEVICE, AND STORAGE MEDIUM

Title (de)
VERFAHREN, GERÄT UND VORRICHTUNG ZUR WASSERTEMPERATURREGELUNG FÜR EIN SCHWIMMBECKENWÄRMEPUMPENSYSTEM SOWIE SPEICHERMEDIUM

Title (fr)
PROCÉDÉ DE RÉGULATION DE LA TEMPÉRATURE DE L'EAU POUR SYSTÈME DE POMPE À CHALEUR DE PISCINE, APPAREIL, DISPOSITIF ET SUPPORT DE STOCKAGE

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Application
EP 21761961 A 20210125

Priority
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Abstract (en)
[origin: EP4053668A1] The present invention relates to the field of heat pump technologies, and discloses a water temperature control method, apparatus, and device for a swimming pool heat pump system, and a storage medium, so as to adjust a water temperature of a swimming pool according to an external ambient temperature, increase a coefficient of performance during operation of the swimming pool heat pump system, reduce energy consumption, avoid frequent opening and closing of the swimming pool heat pump system, and increase a service life of the swimming pool heat pump system. The method of the present invention includes: obtaining an external ambient temperature and adjusting a heating temperature according to the external ambient temperature to obtain a target heating temperature; detecting an inlet water temperature of the swimming pool heat pump system, and determining an absolute value of a temperature difference between the inlet water temperature and the target heating temperature; and determining a target operating frequency band of the swimming pool heat pump system according to the absolute value of the temperature difference, controlling an inverter compressor in the swimming pool heat pump system to heat water in a to-be-heated container based on the target operating frequency band, and placing heated water in the to-be-heated container into the swimming pool by using a circulating pump.

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Citation (search report)
• [Y] CN 201351998 Y 20091125 - ZHEJIANG AMA EFFICIENT MAN ELE [CN]
• [Y] CN 107300231 A 20171027 - GUANDONG MIDEA HVAC EQUIPMENT, et al
• [A] CN 204494893 U 20150722 - ZEALUX ELECTRIC LTD
• [A] CN 101424132 A 20090506 - ZHEJIANG ZHENGЛИ ELECTRONIC & [CN]
• [A] KR 101777711 B1 20170926 - ENERTICS LTD [KR]
• See also references of WO 2022155940A1

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